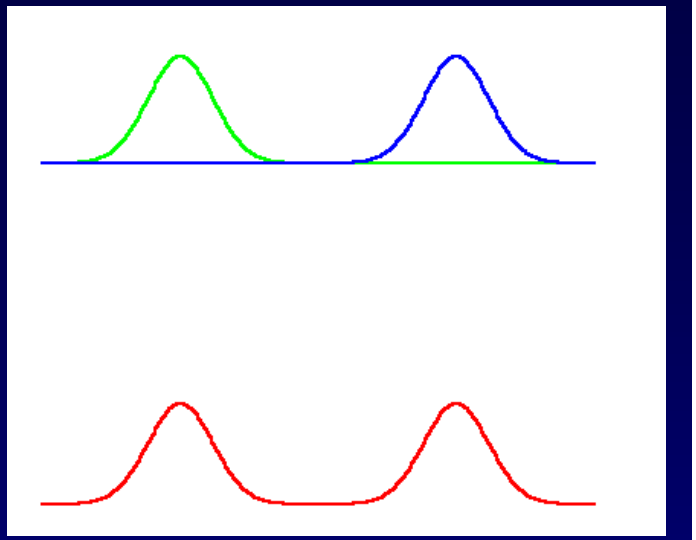
Superposition Example

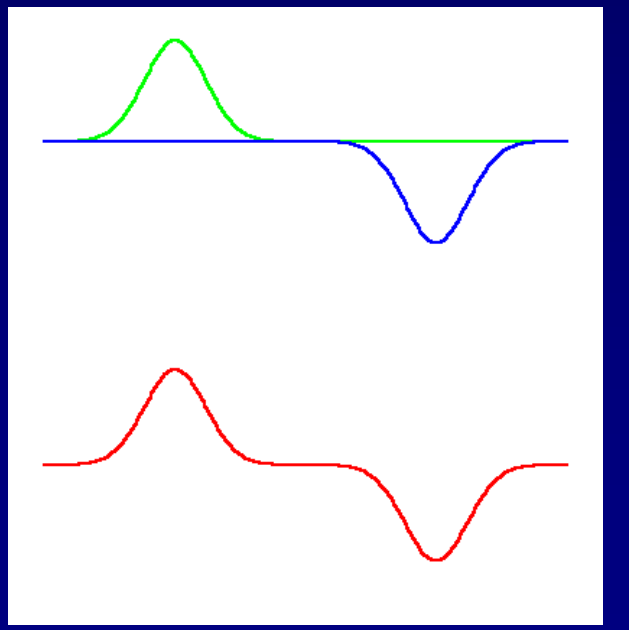
Q: What happens when two waves collide?

A: Because of superposition, the two waves pass through each other unchanged! The wave at the end is just the sum of whatever would have become of the two parts separately.



Superposition is an exact property for:

- Electromagnetic waves in vacuum.
- Matter waves in quantum mechanics.
- This has been established by experiment.



Many (but not all) other waves obey the principle of superposition to a high degree, e.g., sound, guitar string, etc.